UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte DIPAK GHOSH, USHA V. MURTHY,
MUNAWAR HUSSAIN RANDHAWA, NATALYA GURMAN,
PERRY ROMANOWSKI, MEDARDO HERNANDEZ and DEBORAH A. EAGAN

Application No. 09/851,882

ON BRIEF

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U.S. PATENT AND TRADEMARK OFFICE BOARD OF PATENT APPEALS AND INTERFERENCES

Before SCHEINER, ADAMS, and LEBOVITZ, <u>Administrative Patent Judges</u>.

ADAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-68, which are all the claims pending in the application.

Claims 1, 43 and 45 are illustrative of the subject matter on appeal and are reproduced below:

- A composition comprising a skin moisturizing effective amount of a combination of urea and coenzyme Q10, wherein the ratio of urea to coenzyme Q10 in the composition is from about 6:1 to about 10:1 (wt./wt.).
- 45. A method of improving the after-feel of a cosmetic composition when the composition is applied to the skin, the method comprising including in the composition an after-feel enhancing-effective amount

of coenzyme Q10 and urea, wherein the ratio of urea to coenzyme Q10 in the cornposition is from about 6:1 to about 10:1 (wt./wt.).

46. A method of moisturizing the skin, the method comprising applying to the skin a composition comprising a skin moisturizing effective amount of a combination of urea and coenzyme Q10, wherein the ratio of urea to coenzyme Q10 in the composition is from about 6:1 to about 10:1 'wt./wt.).

The references relied upon by the examiner are:

Bertelli 4,654,373 Mar. 31, 1987 Hoppe et al. (Hoppe) 5,889,062 Mar. 30, 1999

Eucerin Product Insert (Product Insert) (date unavailable)

Eucerin® Press Release (Press Release), "Eucerin® The Medical Skin Care Program Press Releases," (Beiersdorf, AG, Hamburg) (date unavailable)

Raab, "Uses of Urea in Cosmetology," <u>Cosmetics & Toiletries</u>, Vol. 105, p. 97-102 (1990)

(FDC), "Beiersdorf <u>Eucerin</u> <u>Plus</u> with 5% sodium lactate, 5% urea is for 'severely dry, scaly skin'," <u>F-D-C Reports</u>, Vol. 13, No. 43, pp. 14 (1992).

Business Editors/Health & Medical Writers (Business Wire), "Q-Pharma, Inc.-Grants Non-Exclusive CoQ10 License to Beiersdorf AG," <u>Business Wire</u>, pp. 1 (Feb. 1, 1999) (ProQuest abstract only)

Eucerin® Medical Site (Eucerin), "Eucerin® Q10 Anti-Wrinkle Sensitive Skin Creme," http://www.eucerinus.com/medicalsite/products/facialcare/q10/q0.html (2002)

GROUNDS OF REJECTION

- I. Claims 1-13, 17-29, and 32-68 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Hoppe and Raab.
 - II. Claims 1-12, 14, 15, 17, 19, 20, 21, 23, 24, 29, 30, 34, 35, 38-41,

43-46, and 54 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Product Insert, Press Release, Business Wire, Bertelli, and FDC.

- III. Claims 13, 16, 18, 22, 28, 31-33, 36, 42, 47-53, and 55-68 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Product Insert, Press Release, Business Wire, Bertelli, FDC and Hoppe.
- IV. Claims 23-25 and 37 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Product Insert, Press Release, Business Wire, Bertelli, FDC, Hoppe, and Raab.

We affirm Rejection I. Having disposed of claims 23-25 and 37, we do not reach the merits of Rejection IV. We reverse Rejection II and Rejection III.

DISCUSSION

Rejection I:

Claims 1-13, 17-29, and 32-68 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Hoppe and Raab. Appellants have provided arguments for the following three claim groupings: I. claims 1-13, 15-29, 32-43, and 62-68; II. claims 43, 44, and 46-61; and III. claim 45. Accordingly, we limit our discussion to representative claims 1, 45 and 46. Claims 2-13, 15-29, 32-43, and 62-68 will stand or fall together with claim 1. Claims 43, 44, and 46-61 will stand or fall together with claim 46. Claim 45 will stand or fall alone. In re Young, 927 F.2d 588, 590, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991).

According to the examiner (Answer, page 3), Hoppe teaches a composition that provides moisture¹ to the skin and comprises "0.2-0.4 [%] by weight of coenzyme Q[-]11)^[2]." The examiner recognizes, however, that Hoppe fails to teach a composition comprising urea, as is required by appellants' claimed invention. Answer, page 4. The examiner relies on Raab to make up for this deficiency in Hoppe. In this regard the examiner finds (id.), "Raab teaches the use of urea in concentrations of 4-10 wt % in cosmetic and/or dermatological compositions to provide [among other things a] moisturizing . . . action to the skin."³

Based on this evidence, and relying on the principles of In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980), the examiner concludes (Answer, page 4), it would have been "prima facie obvious to combine two compounds each of which is taught by the prior art to be useful for the same purpose, in order to form a composition which is to be used for the very same purpose." In this regard, the examiner asserts that appellants' "claims define nothing more than the concomitant use of two skin care actives conventionally used for dry skin treatment." Answer, bridging sentence, pages 4-5. In addition, the examiner asserts (Answer, page 5),

[i]t would have been further obvious to one having ordinary skill in the art at the time the invention was made to have modified the Hoppe invention by adding urea as motivated by Raab because

¹ Hoppe, column 1, lines 54-58.

² Hoppe, column 3, lines 55-58.

³ The examiner also finds (Answer, page 4), Raab "teaches urea increases the therapeutic activity of other pharmaceutical substances, and in Table 3 shows the use of urea in combination with anti-inflammatory agents . . . in the weight ratio of 10:0.3 to 10:5."

of an expectation of successfully producing a topical composition for treating skin disorders including senile xerosis^[a], with enhanced moisturizing property and improved pharmaceutical effects of other skin care actives.

Claim 1:

In response, appellants assert (Brief, page 6), "Hoppe does not teach or suggest combining urea with any of the active compounds described therein, and much less combining urea with coenzyme Q[-]10 specifically in a ratio of from about 6:1 to about 10:1 (wt./wt.) as required . . ." by claim 1. Similarly, appellants assert (id.), "Raab fails to teach or suggest adding coenzyme Q[-]10, and much less combining urea and conenzyme Q[-]10 in a ratio of from about 6:1 to about 10:1 (wt./wt.) as required . . ." by claim 1.

On reflection, we find the weight of the evidence favors the examiner. Hoppe discloses compositions that comprise coenzyme Q-10. See e.g., Hoppe, column 7, Example III. According to Hoppe, these compositions are useful for the treatment of aging skin (column 1, lines 4-8), and more particularly the treatment of "senile xerosis," which is characterized by, inter alia dryness, roughness and itching of the skin (column 1, lines 8-17). According to Hoppe (column 1, lines 55-58), "coenzyme Q-10 has an important function in the prevention of skin damage due to UV radiation and the prevention of aging of the skin. Roughness of the skin of 20- to 40-year olds is improved by giving the skin moisture."

Looking to Example III, column 7 of Hoppe, we note that the disclosed composition comprises a combination of 4.6 parts by weight of glycerol and 0.54

⁴ As taught by Hoppe. Hoppe, column 1, lines 8-18.

parts by weight of coenzyme Q-10. Stated differently, the ratio of glycerol to coenzyme Q-10 is about &.5:1 wt./wt.

As the examiner points out (Answer, page 4), Raab teaches the use of urea in a concentration of 4 to 10% for cosmetic purposes. See Raab, page 97, column 2, lines 19-21. In this regard, Raab teach that "[t]he moisturizing capacity of urea is its most valuable activity for the use in cosmetology." Raab, page 100, column 1, lines 18-19. According to Raab, studies demonstrate that "urea was significantly more active as a moisturizer than glycerol." Page 98, line 29 to page 100, line 19.

In our opinion, given that Raab teaches that urea is significantly more active as a moisturizer than glycerol, a person of ordinary skill in the art would have been motivated to substitute the glycerol component of Hoppe with an equal concentration (4.6 parts by weight) of urea with the expected advantage of increasing the moisturizing effect of the composition disclosed by Hoppe. The resulting composition would have a urea to coenzyme Q-10 ratio of about 8.5:1 wt./wt, well within the requirements of appellants' claim 1.

For the foregoing reasons we affirm the rejection of claim 1 under 35 U.S.C. § 103 as being unpatentable over the combination of Hoppe and Raab. As discussed <u>supra</u>, claims 2-13, 15-29, 32-43, and 62-68 fall together with claim 1. In affirming this ground of rejection, we recognize that our reasoning differs from that of the examiner. Therefore, we will designate our affirmance a new ground of rejection in order to give Appellants a fair opportunity

to respond. <u>See In re Kronig</u>, 539 F.2d 1300, 1302-03, 190 USPQ 425, 426-27 (CCPA 1976).

<u>Claim 45</u>:

As discussed above, the composition of claim 1 is <u>prima facie</u> obvious in view of the combination of Hoppe and Raab. Claim 45 is drawn to a method of improving the after-feel of a cosmetic composition, by including in the composition an after-feel enhancing-effective amount of the composition of appellants' claim 1. According to page 3 of appellants' specification, the term "after-feel" refers to "non-greasiness, rapid absorption, and the like". According to appellants (Brief, page 9), neither Hoppe nor Raab "provide any teaching, suggestion or motivation to modify the subject matter disclosed therein to perform the method recited in claim 45 of the present application." We are not persuaded by appellants' argument.

As discussed above, Hoppe discloses a cosmetic composition, a skin cream that comprises a glycerol to coenzyme Q-10 ratio of about 8.5:1 wt./wt. Raab provides the motivation to substitute urea for the glycerol component of Hoppe, because according to Raab (page 98, line 29 to page 100, line 19), urea is a significantly more active moisturizer than glycerol. The resulting skin cream composition would therefore comprise a urea to coenzyme Q-10 ratio of about 8.5:1 wt./wt. well within the requirements of appellants' claimed invention.

While it may be true that neither Hoppe nor Raab appreciate the a combination of urea and coenzyme Q-10 will improve the "after-feel" of a

cosmetic, "[t]he fact that appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious." Exparte Obiaya, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). On this record, we find that a person of ordinary skill in the art would modify Hoppe's skin cream composition with the teachings of Raab for the expected advantage of increasing the moisturizing effect of the composition disclosed by Hoppe. In our opinion the cosmetic composition taught by the combined teachings of Hoppe and Raab will necessarily have an improved after-feel resulting from the inclusion of urea and coenzyme Q-10 in a ratio of about 8.5:1 wt./wt. Accordingly, we affirm the rejection of claim 45 under 35 U.S.C. § 103 as being unpatentable over the combination of Hoppe and Raab.

Claim 46:

As set forth above, appellants' claim 46 is drawn to a method which comprises applying the composition of claim 1 to the skin. Appellants' arguments in favor of claim 46 are essentially the same as those made for claim 1. Brief, pages 7-8. As discussed above, it is our opinion that the composition of appellants' claim 1 is <u>prima facie</u> obvious in view of the combination of Hoppe and Raab. Both Hoppe and Raab disclose the application of a composition to the skin. Accordingly, for the foregoing reasons we affirm the rejection of claim 46 under 35 U.S.C. § 103 as being unpatentable over the combination of Hoppe and Raab. As discussed supra claims 43, 44, and 47-61 fall together with claim

46. In affirming this ground of rejection, we recognize that our reasoning differs from that of the examiner. Therefore, we will designate our affirmance a new ground of rejection in order to give Appellants a fair opportunity to respond. See In re Kronig, surpa.

Rejection II:

Claims 1-12, 14, 15, 17, 19, 20, 21, 23, 24, 29, 30, 34, 35, 38-41, 43-46, and 54 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Product Insert, Press Release, Business Wire, Bertelli, and FDC.

According to the examiner (Answer, page 5), Product Insert teaches a composition comprising, inter alia, coenzyme Q10. With reference to the Press Release, the examiner finds (id.), the product has been on the market since October 2000. The examiner recognizes, however, that both of these documents fail to disclose urea, or the amount of coenzyme Q10 in the composition. Id.

With reference to Business Wire, the examiner finds (Answer, page 6), the coenzyme Q10 technology is used in topical non-prescription formulations as described in Bertelli. In this regard, the examiner finds Bertelli discloses pharmaceutical and cosmetic formulations comprising 0.1-10% coenzyme Q10 to treat damaged and impaired skin tissue. <u>Id.</u> (col. 2, lines 28 - 64). The examiner recognizes, however, that these references also fail to teach formulations comprising urea. <u>Id.</u>

To make up for this deficiency, the examiner relies on FDC. According to the examiner, FDC teaches a composition comprising 5% urea sold under the tradename Eucerin Plus. <u>Id.</u> In this regard, the examiner finds (<u>id.</u>), "[t]he reference teaches that the product 'induces significant improvements in skin dryness and appearance relative to an untreated control."

Based on this evidence, the examiner concludes (id.),

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Eucerin anti-wrinkle treatment composition by adding 5 % of urea as motivated by Bertelli and FDC Reports, because of an expectation of successfully producing an enhanced skin treatment composition which moisturizes and treats damaged and impaired skin. The motivation to use coenzyme Q10 in the weight amount of 0.1-10 % by weight of the total composition is found in the combined teachings of ... [P]ress [R]elease, Business Wire, and Bertelli.

To reach appellants' method claims, the examiner simply asserts (Answer, page 7), the methods are "obvious uses of the prior art cosmetic compositions."

In response, appellants begin by pointing out that the Product Insert teaches a composition comprising Q10 and Vitamin E, while Press Release teaches a composition comprising Q10 and Vitamin A. Brief, pages 9-10.

Accordingly appellants assert that the dates taught by the Press Release do not pertain to the composition taught by the Product Insert. Brief, page 10. The examiner fails to respond to this point of fact.

Appellants then highlight that none of Product Insert, Press Release,
Business Wire, or Bertelli teach or suggest a formulation comprising coenzyme
Q10 and urea. Brief, page 10. As for FDC, appellants explain that the document simply refers to a formulation comprising sodium lactate and urea. Brief, page

11. In all, appellants assert that there is no suggestion or motivation to combine the reference in the manner necessary to arrive at appellants' claimed invention. Brief, pages 11-12. We agree.

As set forth in <u>In re Kotzab</u>, 217 F.3d 1365, 1369-70, 55 USPQ2d 1313, 1316 (Fed. Cir. 2000):

A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. . . . Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher."

Most if not all inventions arise from a combination of old elements. . . . Thus, every element of a claimed invention may often be found in the prior art. . . . However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. . . . Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. [Citations omitted].

In other words, "there still must be evidence that 'a skilled artisan, . . . with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." <u>Ecolochem Inc. v. Southern Cal. Edison</u>, 227 F.3d 1361, 1375, 56 USPQ2d 1065, 1075-76 (Fed. Cir. 2000). At best, the statement of the rejection establishes that individual parts of the claimed invention were known in the prior art. In our opinion, however, the examiner has failed to establish why one of ordinary skill in the art

would have combined the references in the manner necessary to arrive at appellants' claimed invention.

For the foregoing reasons we reverse the rejection of claims 1-12, 14, 15, 17, 19, 20, 21, 23, 24, 29, 30, 34, 35, 38-41, 43-46, and 54 under 35 U.S.C. § 103 as being unpatentable over the combination of Product Insert, Press Release, Business Wire, Bertelli, and FDC.

Rejection III:

Claims 13, 16, 18, 22, 28, 31-33, 36, 42, 47-53, and 55-68 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Product Insert, Press Release, Business Wire, Bertelli, FDC, and Hoppe. As we understand the examiner's statement of the rejection, the combination of Product Insert, Press Release, Business Wire, Bertelli, and FDC is relied upon as set forth in Rejection II above. As discussed above, this combination of references fails to provide a suggestion or motivation to formulate a composition comprising coenzyme Q10 and urea.

The examiner relies on Hoppe to teach "formulations comprising coenzyme Q10 and additives." However, as discussed in Rejection I, Hoppe fails to teach a composition comprising urea. Hoppe, therefore, fails to make up for the deficiencies in the combination of Product Insert, Press Release, Business Wire, Bertelli, and FDC discussed above.

For the foregoing reasons, we reverse the rejection of claims 13, 16, 18, 22, 28, 31-33, 36, 42, 47-53, and 55-68 under 35 U.S.C. § 103 as being

unpatentable over the combination of Product Insert, Press Release, Business Wire, Bertelli, FDC, and Hoppe

Rejection IV:

Claims 23-25 and 37 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Product Insert, Press Release, Business Wire, Bertelli, FDC, Hoppe and Raab. Having disposed of claims 23-25 and 37 under 35 U.S.C. § 103 as being unpatentable over the combination of Hoppe and Raab, we do not reach the merits of this rejection.

OTHER ISSUES

On reflection, we note that claims 14-16, 30 and 31 are now free from rejection. Accordingly, prior to taking any further action on the merits we encourage the examiner to take a step back and reconsider whether the combination of Hoppe and Raab, alone or in combination with any other available prior art teach the inclusion of a thickener or a neutralizer in a cosmetic composition such as that set forth in appellants' claims 14-16, 30 and 31. While we take no further action on the merits of these claims, we note that Hoppe suggests that the compositions disclosed therein may further comprise, inter alia, a thickener. See e.g., Hoppe, column 4, lines 5-12.

TIME PERIOD FOR RESPONSE

This decision contains a new ground of rejection pursuant to 37 CFR § 41.50(b) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)). 37 CFR § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 CFR § 41.50(b) also provides that the appellant, <u>WITHIN TWO</u>

<u>MONTHS FROM THE DATE OF THE DECISION</u>, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

- (1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .
- (2) Request rehearing. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

AFFIRMED-IN-PART; 37 C.F.R. § 41.50(b)

Toni R. Scheiner
Administrative Patent Judge

Donald E. Adams
Administrative Patent Judge

Richard M. Lebovitz
Administrative Patent Judge

Richard M. Lebovitz
Administrative Patent Judge

Appeal No. 2006-1021
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